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### Re: Comment letter for the Butte Priority Soils Operable Unit (BPSOU) Butte Hill Revegetation Specifications (dated September 2024)

Molly Roby

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## REGION 8

DENVER, CO 80202

November 8, 2024

Mr. Mike McAnulty  
Liability Manager  
Atlantic Richfield Company  
317 Anaconda Road  
Butte, Montana 59701

### **Re: Comment letter for the Butte Priority Soils Operable Unit (BPSOU) Butte Hill Revegetation Specifications (dated September 2024)**

Dear Mr. McAnulty:

The U. S. Environmental Protection Agency (EPA), in consultation with the Montana Department of Environmental Quality (DEQ), is commenting on the Butte Priority Soils Operable Unit (BPSOU) Butte Hill Revegetation Specifications (dated September 2024). Please address the comments below and resubmit for agency review and comment.

#### **Specific Comments**

1. Butte Hill Lime Stabilization, pH Testing of Subgrade. Update the method used to determine acid-base accounting from EPA-600/2-78-054 (1978) to the Nevada Modified Sobek Procedure, Nevada Division of Environmental Protection, November 2, 2021.
2. Butte Hill Cover Soil, Submittals. In the second bullet, the three samples can represent a maximum of 5,000 cubic yards, with contiguous source areas or stockpiles greater than 5,000 cubic yards requiring an additional sample every 2,500 cubic yards. Thus, revise the second bullet as follows: "For each cover soil source or stockpile, Atlantic Richfield Company, Butte Silver Bow County and any other parties conducting remediation or reclamation activities will be required to secure at least three 5-point composite soil samples from the source area or stockpile, with source areas or stockpiles greater than 5,000 cubic yards requiring an additional composite sample every 2,500 cubic yards. Thus a 5,000 cubic yard or less stockpile would require three samples, a 5,001 – 7,500 cubic yard stockpile four samples, a 7,501 – 10,000 cubic yard stockpile five samples, 10,001 – 12,500 cubic yard stockpile six samples, etc. EPA will be notified in advance of the sampling effort and the approximate location and depth where samples (and aliquots) shall be collected. Based on the results of this sampling, EPA/DEQ may approve or reject the source area or stockpile or require additional sampling (additional quantity or analytes) to assure cover soil quality and/or confirm compliance with cover soil specifications or other regulatory requirements."

3. Butte Hill Organic Amendment Application. Delete this specification entirely. The information in the following specification, i.e., Butte Hill Stockpiled Organic Amendment Materials and Application, adequately addresses (with comments below) organic amendment application.
4. Butte Hill Stockpiled Organic Amendment Materials and Application, Materials. Revise the last sentence of the first paragraph to read: "The organic matter content of the less than 2.0 mm fraction shall be determined in the laboratory using the loss on ignition (LOI) at 550 degrees Celsius procedure, Western Region Method S - 9.20 (Soil Organic Matter – Loss On Ignition Method. Soil, Plant and Water Reference Methods for the Western Region – 4th Edition, Miller, R. O., Gavlak, R. and Horneck, D., 2013, pp. 77-78) or Walkley-Black procedure (ASA, Meth. Soil Anal., 1986, Method 29-3.5.2)."
5. Butte Hill Stockpiled Organic Amendment Materials and Application, Application Rate. Insert as the first paragraph in this section the following: "The objective of organic amendment (e.g., cattle manure) incorporation is to achieve a target of greater than 1% organic matter content in the upper 6 inches of reclaimed soil. Thus, the field application rate for the organic amendment must be calculated to achieve greater than 1% organic matter on a dry weight basis. The initial step is to determine the organic matter content of the cover soil source material. If the organic matter results for cover soil source material are greater than 1%, then no organic amendment is necessary. Results less than 1% organic matter in the cover soil source material will require incorporation of an organic amendment."

In the now-second paragraph, insert the following after the fifth sentence: "...content required for a cover soils. Analyses for organic amendments shall be submitted for each Supplier on a regular basis to determine if adjustments to the field application rates are necessary. Post amendment mixing..."

Insert the following at the end of the now-second paragraph: "...on a project-specific basis. Documentation of the organic amendment application, including application rate calculations, shall be included in the final construction completion documents(s) for the project."

6. Butte Hill Stockpiled Organic Amendment Materials and Application, Organic Amendment Application and Incorporation. Modify the third sentence of the first paragraph as follows: "...trommel, in-line mixer, etc.), spreading and tilling, or mechanical means (front-end...." Modify the second sentence of the second paragraph to read: "...content, then % organic matter content via LOI or Walkley-Black shall be the only...". Add the following new section to the end of this specification:

**"Site Grading"**

Prior to placement of the organic amendment, all areas shall be graded as necessary to approximately restore the design contours of the ground or to produce a contour that will blend with contours of adjacent areas. This shall include grading erosion channels in revegetated areas that are to receive organic amendment."

If you have any questions or concerns, please call me at (406) 457-5021.

Sincerely,

Molly Roby  
Remedial Project Manager

cc: (email only)

Butte File	Matthew Mavrinac/RARUS
Chris Greco/Atlantic Richfield	Mark Neary/BSB
Mike McAnulty/Atlantic Richfield	Eric Hassler/BSB
Josh Bryson/Atlantic Richfield	Chad Anderson/BSB
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Dave Griffis/Atlantic Richfield	Sean Peterson/BSB
Jean Martin/Atlantic Richfield	Josh Vincent/WET
Irene Montero/Atlantic Richfield	David Dobrinen/W&C
David A. Gratson/ Environmental Standards	Scott Bradshaw/W&C
Mave Gasaway/DGS	Emily Evans/W&C
Adam Cohen/DGS	Pat Sampson/Pioneer
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